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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/006,537	11/30/2001	Huy P. Nguyen	PALM-3777	9991

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EXAMINER	
ANYASO, UCHENDU O	
ART UNIT	**PAPER NUMBER**
2675	

DATE MAILED: 10/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/006,537	NGUYEN ET AL.	
	Examiner	Art Unit	
	Uchendu O Anyaso	2675	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 September 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,5-17,19-21,23 and 26-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,5-17,19-21,23 and 26-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. **Claims 1, 5-17, 19-21, 23** and **26-35** are pending in this action.

Claim Rejections - 35 USC ' 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. **Claims 1, 3-17, 19-21** and **26-35** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Seager* (U.S. Patent 5,235,561) in view of *Granberg* (U.S. Patent Application Pub. 2003/0112225).

Regarding **independent claim 1**, and for **claims 7** and **16**, Seager teaches an invention that relates to a wristwatch that can be converted temporarily to a form suitable for use as a handheld radiotelephone (column 1, lines 5-9).

Furthermore, Seager teaches how device 10 includes a display 40 (column 2, lines 13-14, figure 1 at 40).

Furthermore, Seager teaches a first keypad slider in the form of body member 20a comprising a keypad in the form of telephone control buttons 42 (column 2, lines 7-68, figure 1-4 at 20a, 42).

Furthermore, Seager teaches a second keypad slider in the form of body member 20b wherein the body member 20b comprises a keypad in the form of telephone dialing buttons 44 (column 2, lines 7-68, figure 1-4 at 20b, 44).

However, Seager does not teach how a keypad slider would cover a display when in a closed position. On the other hand, Granberg teaches an electronic device such as a mobile telephone with a touch screen display 1, and a movable keypad 11 that can be advantageously pulled up to a position to more or less cover the display 1 (*see* Abstract; *see also* page 2, paragraph 0015, figure 3 at 1, 11).

Thus, it would have been obvious to a person of ordinary skill in the art to combine Seager and Granberg because while Seager teaches how a handheld telephone would comprise a first keypad slider and a second keypad slider, Granberg teaches how such sliders would be designed within the framework of mobile telephone electronic device such that the movable keypad 11 can be advantageously pulled up to a position to more or less cover the display 1 (*see* Abstract; *see also* page 2, paragraph 0015, figure 3 at 1, 11). The motivation for combining these inventions would have been to use the keypad slider to protect the display 1 (*see also* page 2, paragraph 0015, figure 3 at 1, 11).

Furthermore, Seager teaches a window in the keypad slider by teaching how device 10 includes a display 40 (column 2, lines 13-14, figure 1 at 40) wherein such display 40 would be viewed while in a closed position (see figure 1 that permits viewing display 40 while the radiotelephone is closed (figure 1 at 40).

Also, by incorporating the design of Seager and Granberg, one of ordinary skill in the art would be able to accomplish a second keypad slider with a display of touch screen display 1 because while Seager teaches how a handheld telephone would comprise a first keypad slider and a second keypad slider, Granberg teaches how such sliders would be designed within the framework of mobile telephone electronic device such that the movable keypad 11 can be

advantageously pulled up to a position to more or less cover the touch screen display 1 (*see* Abstract; *see also* page 2, paragraph 0015, figure 3 at 1, 11). The motivation for combining these inventions would have been to use the keypad slider to protect the display 1 (*see also* page 2, paragraph 0015, figure 3 at 1, 11).

However, Seager does not teach how such a second window would also be viewed while in a closed position. On the other hand, Seager teaches how a display 40 would be viewed while the device 10 is in a closed position as shown above (figure 1 at 40). Thus, it would have obvious to a person of ordinary skill in the art to learn from the design methodology of the first keypad slider in order to include a display in the second display slider that would also be viewed while in a closed position. The motivation for doing so would have been to display the features on the second display.

Regarding **independent claims 17** and **19**, Seager teaches an invention that relates to a wristwatch that can be converted temporarily to a form suitable for use as a handheld radiotelephone (column 1, lines 5-9).

Furthermore, Seager teaches how device 10 includes a display 40 (column 2, lines 13-14, figure 1 at 40).

Also, Seager teaches a data processing and transceiver modules by teaching dialing and control buttons, and radiotelephone communication device (*see* Abstract). It is inherent that such a radiotelephone communication device would include a wireless transmitter and wireless receiver in order to accomplish a radio or wireless communication.

Furthermore, Seager teaches a microphone slider 50 and a speaker slider 52 wherein the body members 20a and 20b on which the microphone slider 50 and speaker slider 52 are embedded comprise a keypad in the form of telephone dialing buttons 42, 44 (column 3, lines 10-22, figure 3, 4 at 20a, 20b, 42, 44, 50, 52).

However, Seager does not teach how a keypad slider would cover a display when in a closed position. On the other hand, Granberg teaches an electronic device such as a mobile telephone with a touch screen display 1, and a movable keypad 11 that can be advantageously pulled up to a position to more or less cover the display 1 (*see* Abstract; *see also* page 2, paragraph 0015, figure 3 at 1, 11).

Thus, it would have been obvious to a person of ordinary skill in the art to combine Seager and Granberg because while Seager teaches how a handheld telephone would comprise a first keypad slider and a second keypad slider, Granberg teaches how such sliders would be designed within the framework of mobile telephone electronic device such that the movable keypad 11 can be advantageously pulled up to a position to more or less cover the display 1 (*see* Abstract; *see also* page 2, paragraph 0015, figure 3 at 1, 11). The motivation for combining these inventions would have been to use the keypad slider to protect the display 1 (*see also* page 2, paragraph 0015, figure 3 at 1, 11).

Furthermore, Seager teaches a window in the keypad slider by teaching how device 10 includes a display 40 (column 2, lines 13-14, figure 1 at 40) wherein such display 40 would be viewed while in a closed position (see figure 1 that permits viewing display 40 while the radiotelephone is closed (figure 1 at 40).

Also, by incorporating the design of Seager and Granberg, one of ordinary skill in the art would be able to accomplish a second keypad slider with a display of touch screen display 1 because while Seager teaches how a handheld telephone would comprise a first keypad slider and a second keypad slider, Granberg teaches how such sliders would be designed within the framework of mobile telephone electronic device such that the movable keypad 11 can be advantageously pulled up to a position to more or less cover the touch screen display 1 (*see* Abstract; *see also* page 2, paragraph 0015, figure 3 at 1, 11). The motivation for combining these inventions would have been to use the keypad slider to protect the display 1 (*see also* page 2, paragraph 0015, figure 3 at 1, 11).

However, Seager does not teach how such a second window would also be viewed while in a closed position. On the other hand, Seager teaches how a display 40 would be viewed while the device 10 is in a closed position as shown above (figure 1 at 40). Thus, it would have obvious to a person of ordinary skill in the art to learn from the design methodology of the first keypad slider in order to include a display in the second display slider that would also be viewed while in a closed position. The motivation for doing so would have been to display the features on the second display.

Regarding **independent claims 21**, Seager teaches an invention that relates to a wristwatch that can be converted temporarily to a form suitable for use as a handheld radiotelephone (column 1, lines 5-9).

Also, Seager teaches a data processing by teaching dialing and control buttons (*see* Abstract).

Furthermore, Seager teaches a first keypad slider in the form of body member 20a comprising a keypad in the form of telephone control buttons 42 (column 2, lines 7-68, figure 1-4 at 20a, 42).

Furthermore, Seager teaches a second keypad slider in the form of body member 20b wherein the body member 20b comprises a keypad in the form of telephone dialing buttons 44 (column 2, lines 7-68, figure 1-4 at 20b, 44).

However, Seager does not teach how a keypad slider would cover a display when in a closed position. On the other hand, Granberg teaches an electronic device such as a mobile telephone with a touch screen display 1, and a movable keypad 11 that can be advantageously pulled up to a position to more or less cover the display 1 (*see* Abstract; *see also* page 2, paragraph 0015, figure 3 at 1, 11).

Thus, it would have been obvious to a person of ordinary skill in the art to combine Seager and Granberg because while Seager teaches how a handheld telephone would comprise a first keypad slider and a second keypad slider, Granberg teaches how such sliders would be designed within the framework of mobile telephone electronic device such that the movable keypad 11 can be advantageously pulled up to a position to more or less cover the display 1 (*see* Abstract; *see also* page 2, paragraph 0015, figure 3 at 1, 11). The motivation for combining these inventions would have been to use the keypad slider to protect the display 1 (*see also* page 2, paragraph 0015, figure 3 at 1, 11).

Also, Seager does not teach a voice recognition processor. On the other hand, Granberg teaches how voice recognition would be incorporated into the system by teaching how the processor contains circuits 39 necessary for mobile telephony including the conversion of speech information between digital and analog states (page 2, paragraph 0020, figure 6 at 39). Thus, it would have been obvious to a person ordinary skill in the art to combine Seager and Granberg's inventions because while a Seager teaches a microphone slider 50 and a speaker slider 52, Granberg teaches how voice recognition would be incorporated into the system (page 2, paragraph 0020, figure 6 at 39). The motivation for combining these inventions would have been to facilitate a robust and efficient communication by a user of the radiotelephone.

Regarding **independent claim 23**, and for **claim 35**, Seager teaches an invention that relates to a wristwatch that can be converted temporarily to a form suitable for use as a handheld radiotelephone (column 1, lines 5-9).

Also, Seager teaches a data processing by teaching dialing and control buttons (*see* Abstract).

Furthermore, Seager teaches a first keypad slider in the form of body member 20a comprising a keypad in the form of telephone control buttons 42 (column 2, lines 7-68, figure 1-4 at 20a, 42).

Furthermore, Seager teaches a second keypad slider in the form of body member 20b wherein the body member 20b comprises a keypad in the form of telephone dialing buttons 44 (column 2, lines 7-68, figure 1-4 at 20b, 44).

However, Seager does not teach how a keypad slider would cover a display when in a closed position. On the other hand, Granberg teaches an electronic device such as a mobile telephone with a touch screen display 1, and a movable keypad 11 that can be advantageously pulled up to a position to more or less cover the display 1 (*see* Abstract; *see also* page 2, paragraph 0015, figure 3 at 1, 11).

Thus, it would have been obvious to a person of ordinary skill in the art to combine Seager and Granberg because while Seager teaches how a handheld telephone would comprise a first keypad slider and a second keypad slider, Granberg teaches how such sliders would be designed within the framework of mobile telephone electronic device such that the movable keypad 11 can be advantageously pulled up to a position to more or less cover the display 1 (*see* Abstract; *see also* page 2, paragraph 0015, figure 3 at 1, 11). The motivation for combining these inventions would have been to use the keypad slider to protect the display 1 (*see also* page 2, paragraph 0015, figure 3 at 1, 11).

Regarding **claim 3,** in further discussion of claim 1, Seager teaches a window in the keypad slider by teaching how device 10 includes a display 40 (column 2, lines 13-14, figure 1 at 40).

Regarding **claims 4,** in further discussion of claims 1 and 23, Seager and Granberg do not teach a window within a second keypad slider. On the other hand, Seager teaches a window in the keypad slider by teaching how device 10 includes a display 40 (column 2, lines 13-14, figure 1 at 40).

Thus, it would have obvious to a person of ordinary skill in the art to learn from the design methodology of the first keypad slider in order to include a display in the second display slider. The motivation for doing so would have been to display multiple features on the second display.

Regarding **claim 6**, in further discussion of claim 1, Seager teaches the keypad slider 20b is connected to display 40 via members 20c, 20d (column 2, lines 54-68; column 3, lines 36-47, figures 3, 4 at 20a, 20b, 40).

It would have been obvious to a person skilled in the art to modify the members 20c, 20d in order to achieve a ribbon connector because members 20c and 20d are interengaging elements that facilitate the sliding of the keypads.

Regarding **claims 8** and **20**, in further discussion of claim 1 and 17, Seager teaches a detent mechanism for enabling repeatable and stable extension of the handheld device (column 2, lines 54-68).

Regarding **claim 9**, in further discussion of claim 1, Seager teaches how the end closure housing (20b) would include a microphone 50 (figure 4 at 50).

Regarding **claim 10**, in further discussion of claim 9, Seager does not teach a voice recognition processor. On the other hand, Granberg teaches how voice recognition would be incorporated into the system by teaching how the processor contains circuits 39 necessary for

mobile telephony including the conversion of speech information between digital and analog states (page 2, paragraph 0020, figure 6 at 39).

Thus, it would have been obvious to a person ordinary skill in the art to combine Seager and Granberg's inventions because while a Seager teaches a microphone slider 50 and a speaker slider 52, Granberg teaches how voice recognition would be incorporated into the system (page 2, paragraph 0020, figure 6 at 39). The motivation for combining these inventions would have been to facilitate a robust and efficient communication by a user of the radiotelephone.

Regarding **claim 11**, in further discussion of claim 1, Seager teaches how the handheld device would incorporate a speaker 52 (figure 4 at 52, column 3, lines 11-18).

Regarding **claim 12** in further discussion of claim 11, Seager teaches how the end closure housing (20b) would include a microphone 50 (figure 4 at 50).

Regarding **claims 13** and **14**, in further discussion of claim 1, Seager teaches a data processing and transceiver modules by teaching dialing and control buttons, and radiotelephone communication device (*see* Abstract). It is inherent that such a system would include a wireless transmitter and wireless receiver in order to accomplish a wireless communication.

Regarding **claim 26**, in further discussion of claim 23, Seager teaches dialing and control buttons within the device 10 (*see* Abstract).

Regarding **claim 27**, in further discussion of claim 23, Seager teaches how the keypad slider 20b is electrically coupled to the display 40 by a flexible connector (column 2, lines 54-68; column 3, lines 36-47, figures 3, 4 at 20a, 20b, 40).

Regarding **claim 28**, in further discussion of claim 23, Granberg teaches how the flexible cover 11 would be coupled to the display 1 with the aid of special sensor elements (page 2, paragraph 0019).

Regarding **claim 29**, in further discussion of claim 23, Seager teaches a detent mechanism for enabling repeatable and stable extension of the handheld device (column 2, lines 54-68).

Regarding **claim 30**, in further discussion of claims 23, Seager teaches how the end closure housing (20b) would include a microphone 50 (figure 4 at 50).

Regarding **claim 31**, in further discussion of claim 23, Seager teaches how the handheld device would incorporate a speaker 52 (figure 4 at 52, column 3, lines 11-18).

Regarding **claim 32** in further discussion of claim 31, Seager teaches how the end closure housing (20b) would include a microphone 50 (figure 4 at 50).

Regarding **claims 33** and **34**, in further discussion of claim 23, Seager teaches a data processing and transceiver modules by teaching dialing and control buttons, and radiotelephone communication device (*see* Abstract). It is inherent that such a system would include a wireless transmitter and wireless receiver in order to accomplish a wireless communication.

4. **Claim 5** is rejected under 35 U.S.C. 103(a) as being unpatentable over *Seager* (U.S. Patent 5,235,561) in view of *Granberg* (U.S. Patent Application Pub. 2003/0112225), as in claim 1 above, and further in view of *McIntyre* (U.S. Patent 6,549,194).

Regarding **claims 5** and **15**, in further discussion of claim 1, Seager teaches dialing and control buttons within the device 10 (*see* Abstract). However, Seager and Granberg do not teach a display orientation controller. On the other hand, McIntyre teaches a display orientation controller by teaching a touch pad controller 15 within a handheld device that is capable of facilitating the rearrangement of the keypad layout (column 3, lines 28-42, figures 3A-3D, 15).

Thus, it would have obvious to a person of ordinary skill in the art to combine Seager, Granberg and McIntyre because the combination of Seager and Granberg teach a handheld device with first keypad slider in the form of body member 20a comprising a keypad in the form of telephone control buttons 42 (column 2, lines 7-68, figure 1-4 at 20a, 42) and a second keypad slider in the form of body member 20b wherein the body member 20b comprises a keypad in the form of telephone dialing buttons 44 (column 2, lines 7-68, figure 1-4 at 20b, 44), McIntyre teaches a keypad controller that is capable of facilitating the rearrangement of the keypad layout (column 3, lines 28-42, figures 3A-3D, 15). The motivation for combining these inventions would have been to provide a privacy and security mechanism for the handheld device.

5. **Claim 6** is rejected under 35 U.S.C. 103(a) as being unpatentable over *Seager* (U.S. Patent 5,235,561) in view of *Granberg* (U.S. Patent Application Pub. 2003/0112225), as in claim 1 above, and further in view of *Watanabe* (U.S. Patent 6,233,469).

Regarding **claim 6**, in further discussion of claim 1, Seager and Granberg do not teach how a keypad slider would be optically coupled to a display. On the other hand, McIntyre teaches a display orientation controller by teaching a touch pad controller 15 within a handheld device that is capable of facilitating the rearrangement of the keypad layout (column 3, lines 28-42, figures 3A-3D, 15). On the other hand, Watanabe teaches this principle by teaching a portable wireless apparatus wherein the movable body 12b and the lower casing main body unit 11b are signal-connected to each other through an infrared ray by an infrared ray emitting section 9 and an infrared ray receiving section 10 such that after the display unit 4 is viewed by a user, the infrared ray emitting section 9 outputs a data signal inputted by the operational section 5 as an **optical signal** (column 5, lines 39-57).

Thus, it would have obvious to a person of ordinary skill in the art to combine Seager, Granberg and McIntyre because the combination of Seager and Granberg teach a handheld device with first keypad slider in the form of body member 20a comprising a keypad in the form of telephone control buttons 42 (column 2, lines 7-68, figure 1-4 at 20a, 42) and a second keypad slider in the form of body member 20b wherein the body member 20b comprises a keypad in the form of telephone dialing buttons 44 (column 2, lines 7-68, figure 1-4 at 20b, 44), Watanabe teaches how a keypad slider would be optically coupled to a display. The motivation for

combining these inventions would have been to make the operation of the device easier to use (column 1, lines 10-15)

Response to Arguments

6. Applicant's amendments and arguments with respect to claims 1, 5-17, 19-21, 23 and 26-35 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 6,643,124 to *Wilk* for a multiple display module.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Uchendu O. Anyaso whose telephone number is (703) 306-5934. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Saras, can be reached at (703) 305-9720.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Uchendu O. Anyaso

9/28/2004

DENNIS-DOON CHOW
PRIMARY EXAMINER